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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,060	07/02/2002	Arno Kleinhani	FRR-12782	1183

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RANKIN, HILL, PORTER & CLARK, LLP
925 EUCLID AVENUE, SUITE 700
CLEVELAND, OH 44115-1405

EXAMINER	
KYLE, MICHAEL J	

ART UNIT	PAPER NUMBER
3676	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,060	KLEINHANI, ARNO	
	Examiner	Art Unit	
	Michael J Kyle	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1 and 2 are objected to because it is unclear which feature is claimed by the limitation "coding/tumbler pin rows". Claim 1 provides for "tumbler pin rows" in an assigned cylinder, and "coding pin rows", which examiner believes to be on the key, denoted as A1, A2, and A3. The claimed "coding/tumbler pin rows" are also claimed to be located on flat sides of the key. As best understood by the examiner, the limitation "coding/tumbler pin rows" is referring to both the tumbler pin rows of the cylinder and the coding pin rows of the key. However, the tumbler pin rows do not exist on the flat sides of the key, as is suggested by limitation "coding/tumbler pin rows". The examiner requests these limitations to be clarified. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 and 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleinhaeny (U.S. Patent No. 5,438,857). Kleinhaeny discloses a reversible key with at least three tumbler pin rows (column 7, lines 67, 68) and at least three coding pin rows. Kleinhaeny also discloses an assigned cylinder (1) with tumbler pin rows having tumbler pin pairs (K1, 4, in Figure 6) consisting of tumbler pins (K1) and counter pins (4) at the positions of the tumbler pin

rows. The key has a blocking groove (SFN in figure 16) in a coding pin row that runs parallel to an axis of the key. The blocking groove has a coded blocking depth (see figure 16c), and in the assigned cylinder, at least at a rear most coding position, a pair of blocking tumbler pins (Z, and portion not shown above SL) corresponding to the blocking groove with a blocking tumbler pin (Z) and a blocking counter pin (not shown) are received. Column 10, line 14 of Kleinhaeny refers to a "counter-tumbler" arrangement. As claimed, the only difference between a tumbler pin, and a blocking tumbler pin appears to be that a blocking tumbler pin operates in a blocking groove. The tumblers (Z) shown in Kleinhaeny's figure 16C meet this limitation. The blocking counter pin impinges on the cylinder housing (2) if the blocking groove is not deep enough and complete insertion of the key is blocked (column 8, lines 56 and 57). Following insertion of the key, the blocking tumbler pin (Z) and blocking tumbler counter pin at the first (C1) coding position on the key is also utilized as a coding tumbler pin with coding steps for turning of the cylinder.

4. With respect to claim 2-4, Kleinhaeny discloses at least four coding and tumbler pin rows. Kleinhaeny also discloses at least two different coding (defined by depth of the coding), and coding positions from two different bore patterns are provided. A bore of a different depth is considered a different bore pattern.

5. With respect to claim 5, Kleinhaeny discloses the blocking groove (SFN) to run to at least the first two coding positions (C1, C2 in figure 16C) at the very front of a coding pin row, and by blocking tumbler and counter pins (Z) corresponding to the coding positions, with coding step depths at the very front.

6. With respect to claims 6-7, Kleinhaeny discloses the blocking groove to have at least two differently shaped sectors (in figure 15, wider portion bounded by KF, and narrow portion extending from there), and that the blocking groove extends over more than one coding position (figure 16D, see positions C1 and C2) and whereby the depth of the blocking groove is decreases from one coding position (C2) to the next (C1).

7. With respect to claim 8, Kleinhaeny discloses the blocking groove to extend over more than one coding position and whereby the width of the blocking groove remains constant from one position to the next.

8. With respect to claim 10, Kleinhaeny discloses a rising control face (SF) disposed at the tip of the key, the control face pushes an assigned control pin (K) out of the way, whereby the control pin prevents insertion of a key without a control face.

9. With respect to claim 11 and 12, Kleinhaeny discloses the control pin (K) to be a flat pin that also carries out a flank control at a narrow coding milling (column 1, lines 37-50). Kleinhaeny also discloses a blocking code (code of tumblers and pin rows in the blocking groove), second coding (C2), an insertion preventing system by means of a control face (SF) and a control pin (K) as well as flank control by means of a flat pin (column 1, lines 37-50).

10. With respect to claim 13, Kleinhaeny discloses a locking system with security reversible keys with at least three coding and tumbler pin rows that are located on the flat sides of the keys, with an assigned cylinder (1) with tumbler pin rows of pairs of tumbler pins (K1, 4, in Figure 6) consisting of tumbler pins (K1) and counter pins (4) at the positions of a given bore pattern, wherein at least two areas on the keys are defined such that there is a first area (any area on the

key blade) with two additional security elements (SF, KF, or C2) with a higher degree of manufacturing difficulty, and a second area (top of key shown in Figure 1) with a more simple basic coding (F), the first area segmented into independent market areas, and the first area has a blocking code (codes C1, and C2 in Figure 16C). Kleinhaeny also discloses the keys having a blocking groove (SFN) that runs parallel to an axis of the key from a tip of the key to at least a blocking first position of a tumbler pin row on the key, the blocking groove has a coded blocking depth, in the assigned cylinder (1) at least at the rear most coding position, a pair of tumbler pins (Z) with a blocking tumbler pin and an extended blocking counter pin (described as a "counter-tumbler" assembly, column 10, line 14) corresponding to the blocking groove are provided such that the blocking counter pin impinges on the cylinder housing (column 8, lines 56-57) if the blocking groove is not deep enough to thereby block complete insertion of a key with an insufficiently deep blocking groove by the pair of blocking tumbler pins. Kleinhaeny further discloses the blocking tumbler pin (Z) with the blocking counter pin (not shown) after insertions of the key at the rearmost coding position is also utilized as a coding tumbler pin with coding steps for turning the cylinder. The examiner asserts that if a key with an insufficiently deep blocking groove is inserted into the housing of Kleinhaeny, the pins will impinge on the housing (2).

11. With respect to claim 14, Kleinhaeny discloses in the first area, a second coding (C2), an insertion preventing system by means of a control face (SF) and control pin (K) as well as flank control by means of a flat pin (column 1, lines 37-50), along with a blocking code (code of tumbler in blocking groove).

12. With respect to claims 15 and 16, Kleinhaeny discloses the keys to include areas having different bore patterns (shown in figure 1) and that at least three security elements (SF, KF, C2) are provided in the first area.

13. With respect to claim 17, Kleinhaeny discloses the second coding (C2) with a narrow milling is provided. The term "narrow milling" appears to be a process limitation in an article claim and is therefore given little patentable weight.

14. With respect to claim 18, Kleinhaeny discloses all of the security elements of the first area are affixed in one coding row (coding row in the blocking groove SFN).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinhaeny. Kleinhaeny discloses there to be more than one row of tumbler pins, but not with each row of tumbler pins each having a blocking groove with assigned pairs of blocking tumbler pins. However, increasing the number blocking grooves to match the number of tumbler pin rows is considered to be a matter of design choice, as the result produced is an obvious one in that it makes the lock more secure and adds the amount of locking combinations. This result is also achieved by having one blocking groove over no blocking grooves. Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to add more blocking grooves to a key in increase the number of locking combinations.

17. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinhaeny in view of Maas et al (U.S. Patent No. 6,378,739). Kleinhaeny recites all of the limitations of claim 13 above, but does not disclose a first area manufactured in a central place of manufacture and a second area and equipping of cylinders to be manufactured at a remote location. Kleinhaeny also does not disclose the manufacturing to take place in at least two steps whereby the first variable with a higher degree of difficulty are manufactured at a central location and variables with a lower degree of difficulty are manufactured at a decentralized location, that the highest degree of difficulty variables are manufactured centrally, a lower degree of difficulty area is manufactured regionally, and the lowest degree of difficulty area is manufactured locally at the place of application, or that manufacturing of a first area is able to take place decentralized and authorization for a desired operation are controlled and checked from a central location.

18. Maas et al teaches the manufacturing of a liquid dispenser where a container is formed at one location (central), the container is then shipped to a second (remote), location where it is blow molded into a larger container, and then to a final (local) assembly location, where preforms are blow molded into a container having a desired shape, filled with a liquid product, and assembled with dispenser subassemblies (column 13, line 47, to column 14, line 3). Maas et al teaches this process to reduce shipping costs, only a portion of the assembly is shipped, rather than the entire assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the lock and key assembly of

Kleinhaeny at different locations in order to reduce shipping costs. The examiner notes that the manufacturing of the subassemblies, including the forming of the container, is the manufacturing step with the greatest degree of difficulty. The steps following that step decrease in degree of difficulty, as they more oriented to assembling parts that have already been formed.

Response to Arguments

19. Applicant's arguments with respect to claims 1, 3-8, 10-18, and 19-22 have been considered but are moot in view of the new ground(s) of rejection. Claims 1-8, and 10-18 are rejected under 102(b) as being anticipated by Kleinhaeny. Claims 19-22 are rejected under 103(a) as being unpatentable over Kleinhaeny in view of Maas et al.

20. Examiner notes applicant's argument on page 18 of the arguments filed on December 16, 2003, where applicant states that Kleinhaeny does not remove or correct the deficiencies of US '369. Examiner respectfully disagrees. Kleinhaeny provides all of the structure, and the function performed by the structures that are present in the claims, as discussed in the rejections above. To the degree that the blocking groove, blocking pins, and control face of the instant application are claimed, Kleinhaeny's features are identical.

21. In response to applicant's argument that Maas et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Maas et al is reasonably pertinent to the problem with which applicant was concerned. Applicant's claimed method is intended to

allow for rapid local manufacturing (paragraph [0068] of instant application). The method disclosed in Maas et al allows for rapid local manufacturing, as the manufacturing steps of higher difficulty are performed at a central location. The manufacturing steps of a lower degree of difficulty are done locally. It would have been obvious to one of ordinary skill in the art to look to the teachings Maas et al to solve the problem addressed by applicant. Additionally, the method of Maas et al reduces shipping costs.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 703-305-3614. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600